



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, WA 98115

Refer to:  
OSB1997-0840

September 24, 1997

Van Manning  
Bureau of Land Management  
Salem District Office  
1717 Fabry Road SE  
Salem, Oregon 97306

RE: Conference Opinion for the Proposed Nestucca River Road  
and Bible Creek Road Improvement in the Bureau of Land  
Management - Salem District that May Affect Oregon Coast  
Steelhead in the Oregon Coast Range Province

Dear Mr. Manning:

Attached is the National Marine Fisheries Service's (NMFS) Endangered Species Act (ESA) section 7 conference opinion (Opinion) for the proposed Nestucca River Road and Bible Creek Road Improvement in the Salem District Bureau of Land Management (BLM). This action has been determined by the BLM as "likely to adversely affect" and not likely to jeopardize the continued existence or result in the destruction or adverse modification of proposed critical habitat of Oregon Coast steelhead (*Oncorhynchus mykiss*) and Oregon Coast coho salmon (*O. kisutch*). The effects determination was made by evaluating the environmental baseline (current aquatic habitat conditions) and predicting effects of actions on that baseline (see enclosed Opinion).

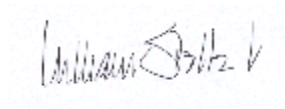
Although the NMFS expects some adverse effects to the environmental baseline from this action, the effects are expected to be minor because of project design and project timing. Additionally, mitigation in the form of culvert replacement for fish passage and downed wood placement will beneficially affect elements of the environmental baseline.



The NMFS is no longer conferencing on candidate species, and therefore, will no longer conference on potential effects of projects on Oregon Coast coho salmon. Should Oregon Coast steelhead become listed under the ESA, or should critical habitat be designated, the NMFS expects the attached Opinion to serve as the basis for a biological opinion on implementation of the action, pursuant to 50 CFR § 402.10(d). Since the ESA does not have a prohibition against take of proposed species, an Incidental Take Statement is not issued with the attached Opinion.

If you have any specific questions, please contact Steve Morris at (503) 231-2224 or Garwin Yip at (503) 230-5419.

Sincerely,

A handwritten signature in dark ink, appearing to read "William Stelle, Jr.", is centered below the word "Sincerely,". The signature is written in a cursive, somewhat stylized script.

William Stelle, Jr.  
Regional Administrator

Enclosures

**Endangered Species Act - Section 7  
Conference**

**CONFERENCE OPINION**

Nestucca River Road and Bible Creek Road Improvement

Agency: Bureau of Land Management, Salem District

Conference

Conducted By: National Marine Fisheries Service  
Northwest Region

Date Issued: September 24, 1997

Refer to: OSB1997-0840

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## I. Introduction and Background

The objective of this conference is to determine whether the proposed Nestucca River Road and Bible Creek Road Improvement is likely to jeopardize the continued existence of Oregon Coast (OC) steelhead or result in the destruction or adverse modification of critical habitat. Description of the proposed action is provided in Section II of this document.

The OC steelhead (*Oncorhynchus mykiss*) Evolutionarily Significant Unit (ESU)<sup>1</sup> was proposed as threatened under the Endangered Species Act (ESA) by the National Marine Fisheries Service (NMFS) (August 9, 1996, 61 FR 41541). The NMFS issued a six-month extension for a final listing determination for OC steelhead based on substantial scientific disagreement regarding the sufficiency and accuracy of data relevant to listing this ESU (August 18, 1997, 62 FR 43974).

The OC coho salmon ESU (*Oncorhynchus kisutch*) was proposed to be listed as threatened under the ESA by the NMFS (July 25, 1995, 60 FR 38011). Subsequent consideration of Federal and state conservation measures have resulted in a determination that a threatened listing of the ESU is not now warranted (May 6, 1997, 62 FR 24588). The OC coho salmon are currently considered to be candidates for ESA listing. This determination is subject to review within three years. The NMFS is no longer conferencing on candidate species, and therefore, will no longer conference on potential effects of projects on OC coho salmon.

The proposed action has been determined as "likely to adversely affect" and not likely to jeopardize the continued existence or result in the destruction or adverse modification of proposed critical habitat of OC steelhead. The NMFS expects this action to adversely affect the environmental baseline. However, project design, timing, and expected mitigation reduce these effects substantially enough to avoid jeopardizing the continued existence of OC steelhead. Mitigation includes actions that will improve the environmental baseline in addition to reducing potential adverse affects of the action. Because critical habitat has

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1. For purposes of conservation under the Endangered Species Act, an Evolutionarily Significant Unit is a distinct population segment that is substantially reproductively isolated from other conspecific population units and represents an important component in the evolutionary legacy of the species (Waples 1991).

not been proposed or designated, this conference does not address destruction or adverse modification of critical habitat. Should OC steelhead be listed under the ESA, or should critical habitat be designated, the NMFS expects this Conference Opinion (Opinion) to serve as the basis for a biological opinion on implementation of this action, pursuant to 50 CFR § 402.10(d).

On August 1, 1997, the NMFS received a memorandum and biological assessment (BA) from the BLM, Salem District, requesting a formal conference regarding the potential effects of Nestucca River Road and Bible Creek Road Improvement on OC steelhead and OC coho salmon (USDI-BLM 1997). This Opinion has been completed pursuant to the ESA and its implementing regulations (50 CFR § 402), and constitutes formal conference for OC steelhead, proposed for listing under the ESA. Formal conferencing on the proposed action is concluded with the issuance of this Opinion.

The NMFS, in collaboration with other Federal agencies<sup>2</sup>, has prepared guidance for determining the effects of human activities on anadromous fish species of concern (NMFS 1996). This guidance is based on a "Matrix of Pathways and Indicators" (Matrix), which is a simple yet holistic method of characterizing environmental baseline conditions and predicting the effects of human activities on those baseline conditions. The Matrix provides generalized ranges of functional values (i.e., properly functioning, at risk, and not properly functioning) for aquatic, riparian, and watershed parameters.

The NMFS acknowledges that the generalized values provided in the Matrix may not be appropriate for all watersheds within the range of anadromous salmonids. Development of more biologically appropriate matrices in specific physiographic areas is encouraged. The NMFS, in conjunction with the Oregon Department of Fish and Wildlife (ODFW) and Federal land management agencies, is in the process of appropriately modifying the Matrix for the Oregon Coast Range Province (this includes the proposed project area). For the purpose of this conference, the existing Oregon Coast Range Province interim Matrix (dated June 14, 1996) was used to analyze the proposed actions. This interim Matrix is included in Attachment 1 of this Opinion.

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2. The other collaborating Federal agencies are the U. S. Forest Service, the Bureau of Land Management, and the U. S. Fish and Wildlife Service.

## II. Proposed Action

The BLM proposes the Nestucca River Road and Bible Creek Road Improvement, which includes the following actions within the Nestucca River watershed (Nestucca section 7 watershed):

1. Replace Alder Glen and Elk Creek bridges to meet current loading standards: Both bridges will be replaced with double lane, single span bridges to meet current loading standards and replace the current single lane bridges that sustained damage in the flood of 1996.
2. Widen and pave 2.6 miles of the Nestucca Access road: A maximum of three-quarters of one mile will require excavation into the hill slope to obtain the width for widening the road. Four to six inches of old gravel surfacing will be removed and replaced with hard, durable rock before surfacing with a three-inch layer of asphalt.
3. Replace, repair, or add an overflow culvert to sustain a 100-year flood event: Approximately 61 culverts that are currently failing, or is expected to require maintenance within the next 5-10 years, will be replaced or an overflow culvert added: approximately 13 culvert inlets would be cleaned, repaired, and restored; approximately 33 culverts would be replaced; approximately two culverts would be added in locations that currently do not have culverts; and approximately 13 overflow culverts would be added. In addition, fish passage will be restored or improved through at least six culverts via replacement, or placement of instream structures, that will provide at least 1.5 additional miles of fish habitat for spawning and rearing.
4. Repair slumps and chip seal on Bible Creek Access Road and Nestucca Access Road: Approximately 40 road-fill failures will be repaired with a combination of launched soil nails, H-beam pilings, replacement of the fail site, and patching with hot mix asphalt. These sites need to be stabilized, as they continue to move and fail, resulting in additional sediment entering the Nestucca River. A one-inch layer of chip seal will be applied to approximately 20.9 miles of the roads.
5. Hauling material to Dovre Peak rock quarry: Waste material and soft rock from the excavation will be hauled up Elk Creek Access Road to Dovre Peak rock quarry. Use

of the road will include maintenance, if necessary.

The BLM has incorporated several project design features in the proposed actions that substantially reduce adverse effects to anadromous fish. These features include:

1. Bridge replacements:

- C Designing the substructure supports to be outside the river channel.
- C Requiring oil spill containment devices if equipment is necessary in the river channel.
- C Complying with ODFW's preferred in-water work window of July 1 through September 15 (ODFW 1997). The preferred in-water work windows are guidelines to assist the public in minimizing potential impacts to important fish, wildlife, and habitat resources. Time periods were established to avoid the vulnerable life stages of fish including migration, spawning, and rearing.

2. Nestucca Access Road widening and paving:

- C All excavation occurring on the hill slope, mostly within bedrock.
- C Replacing the existing soft rock gravel with hard, durable rock.
- C Paving the gravel portion to reduce sediment input into the Nestucca River.
- C Washing asphalt machinery prior to going to the site, and the contractor(s) being required to have a hazardous materials plan.

3. Replace, repair, and add culverts:

- C Controlling sediment by using silt fences, straw bales, sand bags, routing streams around work sites, and blanketing exposed soils with erosion prevention material and grass seeding.
- C Complying with ODFW's preferred in-water work window of July 1 through September 15.
- C Upgrading all culverts to pass a 100-year flood event, or providing an overflow culvert to do so.

- C Reducing the potential for sediment increases by installing overflow culverts, rather than excavating the enormous amounts of fill material to replace the existing culverts.
- 4. Slump repair and chip seal:
  - C Utilizing stabilization techniques, like the launched soil nails, that reduce the potential of sediment increases during the repair work.
- 5. Haul material up Elk Creek Access Road:
  - C Hauling during the dry season.
  - C Hauling the material to disposal sites (e.g., Dovre Peak rock quarry) which are not near a waterway.
  - C Grading, seeding, and planting the excess excavation material.
- 6. Other features:
  - C Grass seeding all disturbed areas by October 31.
  - C Adding approximately 15 flumes to existing culverts to dissipate hydraulic energy, reducing erosion and the undercutting of road fills.
  - C Moving approximately 12-20 wind-throw trees located upslope of the Nestucca River Road to the flood plain of the Nestucca River. In addition, trees removed for culvert replacement or installation would be placed into the flood plain.

Full project details are available in USDI-BLM (1997).

### **III. Biological Information and Critical Habitat**

The listing status and biological information for OC steelhead is described in Attachment 1. While critical habitat has not been proposed or designated, Attachment 1 describes potential critical habitat elements for OC steelhead.

### **IV. Evaluating the Proposed Actions**

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA, and defined in the implementing regulations (50 CFR § 402). Attachment 2 describes how the

NMFS applies the ESA jeopardy standards. The OC steelhead is not currently listed and therefore there is no designated critical habitat. If critical habitat is proposed or designated, consultation would be reinitiated to determine if there will be destruction or adverse modification of critical habitat.

As described in Attachment 2, the first steps in applying the ESA jeopardy standards are to define the species' biological requirements and to describe the species' current status as reflected by the environmental baseline. In the next steps, the NMFS' jeopardy analysis considers how proposed actions are expected to directly and indirectly affect specific environmental factors that define properly functioning aquatic habitat essential for the survival and recovery of the species. This analysis is set within the dual context of the species' biological requirements and the existing conditions under the environmental baseline (defined in Attachment 1). The analysis takes into consideration the overall balance of beneficial and detrimental activities taking place within the action area. If the NMFS finds that the Federal actions are likely to jeopardize the listed species then the NMFS must identify any reasonable and prudent alternatives to the proposed action.

**A. Biological Requirements.** For this conference, the NMFS finds that the biological requirements of OC steelhead are best expressed in terms of environmental factors that define properly functioning freshwater aquatic habitat necessary for survival and recovery of the species. Individual environmental factors include water quality, habitat access, physical habitat elements, channel condition, and hydrology. Properly functioning watersheds, in which all of the individual factors operate together to provide healthy aquatic ecosystems, are also necessary for the survival and recovery of OC steelhead. This information is summarized in Attachment 1.

**B. Environmental Baseline.**

- 1. Current range-wide status of the species under the environmental baseline.** The OC steelhead ESU is not presently in danger of extinction. The NMFS is now considering whether it is likely to become endangered in the foreseeable future (Busby *et al.* 1996). In the absence of adequate population data,

habitat condition provides a means of evaluating the status of these species for the environmental baseline assessment.

2. **Action Area.** The "action area" is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR § 402.02). Thus, the "action area" for this conference includes areas downstream of the project area as well as the immediate project area itself.
3. **Current status of the species under the environmental baseline within the action area.** Environmental baseline conditions within the action area were evaluated at the site and basin scale. This evaluation was based on the Oregon Coast Province Interim Matrix (see Attachment 1). This method assesses the current condition of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the species. The environmental baseline within the Nestucca Section 7 Watershed is divided between "properly functioning," "at risk," and "not properly functioning," but the majority of the environmental conditions are "at risk" or "not properly functioning" (USDI-BLM 1997).

Based on the best information available on the current status of the species (Attachment 1) and the NMFS' assumptions given the information available regarding (1) population status, population trends, and genetics (page 3 of Attachment 2) and (2) the environmental baseline conditions within the action area, the NMFS concludes that the biological requirements of OC steelhead are currently not being met under the environmental baseline within the action area. Significant improvement in habitat conditions is needed to meet the biological requirements for survival and recovery of these species. Actions that do not maintain or restore properly functioning aquatic habitat conditions would be likely to jeopardize the continued existence of OC steelhead due to the high level of risk the species presently face under the degraded environmental baseline.

## **V. Analysis of Effects**

- A. **Effects of Proposed Action.** The effect determination for

the proposed project was made using NMFS (1996) to evaluate the environmental baseline (current aquatic conditions) and to predict any effects of the actions on that baseline. The effects of the action are expressed in terms of the expected effect (restore, maintain, or degrade) on each of the aquatic habitat factors in the project area, as described in the "Checklist for documenting environmental baseline and effects of the action" (Checklist) completed for the action (USDI-BLM 1997). The results of the Checklists for the action provide a basis for determining the overall effects on the environmental baseline in the project area.

Some short-term degradation in turbidity, chemical contamination, and substrate/sediment may occur as a result of implementing the proposed action. In the long term, the proposed action is expected to maintain, or move toward restoration, all habitat indicators in the Nestucca Section 7 Watershed (USDI-BLM 1997). The balance of various aspects of the proposed project will move habitat toward restoration in areas where habitat is not properly functioning.

Potential adverse effects of the project and mitigating factors are discussed below.

- C Existing conditions of the Nestucca River Road and slumps are chronic sources of sediment into the Nestucca River. The project will reduce these sources of sediment by paving the road and repairing the slumps.
- C The bridge replacements, excavation for road widening, replacement, repair, and adding culverts, and hauling material up Elk Creek Access Road, all have the potential of increasing sediment input into the Nestucca River. However, erosion control measures will be in place, in addition to seeding all exposed soils immediately after the disturbance. All construction would be done during the dry season to reduce the potential of sediment entering the Nestucca River. Also, at least 1.5 miles of fish habitat upstream of culverts will be accessible through improvements for fish passage through culverts.
- C The asphalt and bridge replacement work have the potential of increasing chemical contaminants in the

Nestucca River. The potential is reduced, however, as the asphalt machinery will be washed prior to going to the site, and the contractor(s) being required to have a hazardous materials plan. In addition, oil spill containment devices will be required if equipment is necessary in the river channel during the bridge replacement work.

- B. Cumulative Effects.** "Cumulative effects" are defined as those effects of "future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 CFR § 402.02).

Significant improvement in the reproductive success of OC steelhead is unlikely without changes in agricultural, forestry, and other practices affecting riparian areas. The NMFS is not aware of any future changes to existing State and private activities within the action area that would cause greater impacts to these species than presently occurs.

## **VI. Conclusion**

The Nestucca River Road and Bible Creek Road Improvement, as described in USDI-BLM (1997), is not likely to jeopardize the continued existence of OC steelhead. The NMFS used the best available scientific and commercial data to apply its jeopardy analysis (Attachment 2) when analyzing the effects, including cumulative effects, of the proposed action on the biological requirements of the species relative to the environmental baseline.

In reaching this conclusion, the NMFS has determined that the likelihood of survival and recovery of OC steelhead can be increased by providing sufficient prespawning survival, egg-to-smolt survival, and upstream/downstream migration survival rates through the protection of and restoration to properly functioning freshwater habitat within the Nestucca Section 7 Watershed.

The BLM applied the NMFS' evaluation methodology (NMFS 1996) to the proposed action and found that the proposed action would maintain most of the essential habitat elements, with minor, short-term degradation of some essential habitat elements, like turbidity, chemical contamination, and substrate/sediment. The action would move other habitat indicators, like turbidity, substrate/sediment, and large

woody debris towards restoration. Project design features, such as compliance with ODFW's preferred in-water work window, work during the dry season, relocating large woody debris, and restoring and improving fish passage substantially diminish short-term adverse effects to anadromous salmonids.

Because they are balanced by habitat improvements, adverse habitat effects from the proposed action would not reduce prespawning survival, egg-to-smolt survival, or upstream/downstream migration survival rates to a level that would appreciably diminish the likelihood of survival and recovery of OC steelhead.

## **VII. Conservation Recommendations**

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of a proposed action on listed species, to minimize or avoid adverse modification of critical habitat, or to develop additional information.

The BLM has taken some measures to minimize and mitigate the effects of the proposed project (see section II, Proposed Action). The following conservation recommendation is designed to further assist the BLM in minimizing effects to anadromous salmonids:

- C Prior to implementation of the proposed project, the BLM shall contact the Federal Highways Administration and coordinate an implementation schedule that staggers construction with the proposed Blaine Road, Phase II project, in order to further reduce potential adverse affects from sediment.

Should monitoring indicate that excessive sediment is delivered to waterways (e. g., a 10% or greater increase in turbidity), the BLM shall notify the NMFS. The NMFS may request reinitiation of this conference.

## **VIII. Reinitiation of Conference**

Reinitiation of this conference is required: (1) if any action is modified in a way that causes an effect on the species that was not previously considered in the BA and in this Opinion; (2) new information or project monitoring reveals effects of

the action that may affect the species in a way not previously considered; or (3) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR § 402.16).

For example, the analysis included in this conference has been conducted at the project or site level. Future watershed or basin analyses may indicate that the existing environmental baseline is substantially different than indicated by this analysis. Reinitiation of this conference would be required for ongoing or continuing activities for which the environmental baseline is substantially different than originally assessed.

## **IX. References**

Section 7(a)(2) of the ESA requires biological and conference opinions to be based on "the best scientific and commercial data available." This section identifies the information used in developing this Opinion in addition to the BAs provided by the BLM.

Busby, P.J., T.C. Wainwright, G.J. Bryant, L.J. Lierheimer, R.S. Waples, F.W. Waknitz, and I.V. Lagomarsino. 1996. Status review of west coast steelhead from Washington, Idaho, Oregon, and California. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-NWFSC-27. 261 pages.

National Marine Fisheries Service (NMFS). 1996. Making ESA Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. NMFS, Environmental and Technical Services Division, Habitat Conservation Branch, 525 NE Oregon Street, Portland, Oregon. 28 pages.

Oregon Department of Fish and Wildlife (ODFW). 1997. Oregon Guidelines for timing of in-water work to protect fish and wildlife resources. January, Version 01. Attachment to a July 2, 1997, memorandum, from Patty Snow (ODFW) to interested parties. 11 pages.

United States Department of Interior - Bureau of Land Management (USDI-BLM). 1997. August 1, 1997, memorandum and biological assessment, from Mark Lawrence, Jr. (BLM), to Elizabeth Gaar (NMFS), for Nestucca River Road and Bible Creek Road Improvement, that may affect Oregon Coast steelhead or Oregon Coast coho salmon. Salem District. 18 pages plus 2 maps.

Waples, R.S. 1991. Definition of "species" under the endangered Species Act: application to Pacific salmon. NOAA Technical Memorandum NMFS F/NWC-194, Northwest Fisheries Center, Seattle, Washington. 29 pages.